



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION:	PS-90A2	BYPASS RATIO:	4.3
UNIQUE ID NUMBER:	13AA008	PRESSURE RATIO (π_{00}):	31.2
COMBUSTOR:	93-03-800		
ENGINE TYPE:	MTF	RATED THRUST (F_{00}) (kN):	157.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	6.8	35.1	55.4	17.6
AS % OF ORIGINAL LIMIT	34.7	29.7	54.5	0.8
AS % OF CAEP/2 LIMIT (NO _x)			68.1	
AS % OF CAEP/4 LIMIT (NO _x)			80.7	
AS % OF CAEP/6 LIMIT (NO _x)			91.7	
AS % OF CAEP/8 LIMIT (NO _x)			105.4	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 - DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	1.380	0.11	0.44	32.70	15.5
CLIMB OUT	85	2.2	1.117	0.14	0.65	25.52	16.2
APPROACH	30	4.0	0.491	0.21	1.91	9.31	12.1
IDLE	7	26.0	0.171	2.88	16.79	4.30	1.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			590	820	4825	7902	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				5.2	30.8	50.3	16.2
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.0	0.0	0.0	0.0
RANGE (D _p /F ₀₀ in g/kN, or SN)				4.98-5.55	28.46-31.84	46.7-53.6	14.75-17.96

ACCESSORY LOADS

POWER EXTRACTION	0	(kW)	AT	-	POWER SETTINGS
STAGE BLEED	0	(% CORE FLOW)	AT	-	POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.8-101
TEMPERATURE (K)	275-297.5
ABS HUMIDITY (kg/kg)	0.00267-0.0129

FUEL

SPEC	TS-1
H/C	1.95
AROM (%)	14.3

MANUFACTURER: Aviadvigatel
 TEST ORGANIZATION: OJSC Aviadvigatel
 TEST LOCATION: Perm City
 TEST DATES: 05/06/2006-27/06/2006

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

1. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)